

Notice of Allowability

Application No.

08/170,344

Examiner

N. M. Minnifield

Applicant(s)

KAST ET AL.

Art Unit

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/20/06; 12/6/07.
2. ☒ The allowed claim(s) is/are 5, 6, 8, 10, 12, 14, 16 and 26-30; now renumbered 1-12 respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☒ to Paper No./Mail Date #13/08-23-95.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☒ Interview Summary (PTO-413), Paper No./Mail Date attached.
- ☒ Examiner's Amendment/Comment
- ☐ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

N. M. Minnifield
Primary Examiner
Art Unit: 1645

EXAMINER'S AMENDMENT

1. Applicants' amendments filed November 20, 2006 and September 19, 2007 are acknowledged and have been entered. Claims 1-4, 7, 9, 11, 13, 15 and 17-25 have been canceled. Claims 5, 6, 8, 10, 12, 14, 16 and 26-30 have been amended. Claims 5, 6, 8, 10, 12, 14, 16 and 26-30 are now pending in the present application. All rejections/objections have been withdrawn in view of Applicants' amendment to the claims and/or comments.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mita Mukherjee, 54325, on December 6, 2007.

3. The application has been amended as follows:

1-4. (cancelled)

5. (currently amended) [A] An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

AMFQDPQER (residues 7- 15 of HPV16 protein E6) SEQ ID NO:1

KLPQLCTEL (residues 18- 26 of HPV16 protein E6) SEQ ID NO:2

QLCTELQTT (residues 21- 29 of HPV16 protein E6) SEQ ID NO:3

LCTELQTTI (residues 22- 30 of HPV16 protein E6) SEQ ID NO:4

ELQTTIHDI (residues 25- 33 of HPV16 protein E6) SEQ ID NO:5
LQTTIHDII (residues 26- 34 of HPV16 protein E6) SEQ ID NO:6
TIHDIILEC (residues 29- 37 of HPV16 protein E6) SEQ ID NO:7
IHDIIILECV (residues 30- 38 of HPV16 protein E6) SEQ ID NO:8
CVYCKQQLL (residues 37- 45 of HPV16 protein E6) SEQ ID NO:9
FAFRDLCIV (residues 52- 60 of HPV16 protein E6) SEQ ID NO:10
KISEYRHYC (residues 79- 87 of HPV16 protein E6) SEQ ID NO:11
PLCDLLIRC (residues 102-110 of HPV16 protein E6) SEQ ID NO:12
TLHEYMLDL (residues 7- 15 of HPV16 protein E7) SEQ ID NO:13
MLDLQPETT (residues 12- 20 of HPV16 protein E7) SEQ ID NO:15
RLCVQSTHV (residues 66- 74 of HPV16 protein E7) SEQ ID NO:16
TLEDLLMGT (residues 78- 86 of HPV16 protein E7) SEQ ID NO:17
LLMGTLGIV (residues 82- 90 of HPV16 protein E7) SEQ ID NO:18
GTLGIVCPI (residues 85- 93 of HPV16 protein E7) SEQ ID NO:19 and
TLGIVCPIC (residues 86- 94 of HPV16 protein E7) SEQ ID NO:20;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A2.1.

6. (previously presented) An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

KLPDLCTEL (residues 13- 21 of HPV18 protein E6) SEQ ID NO:21
SLQDIEITC (residues 24- 32 of HPV18 protein E6) SEQ ID NO:22
LQDIEITCV (residues 25- 33 of HPV18 protein E6) SEQ ID NO:23
EITCVYCKT (residues 29- 37 of HPV18 protein E6) SEQ ID NO:24
KTVLELTEV (residues 36- 44 of HPV18 protein E6) SEQ ID NO:25
ELTEVFEFA (residues 40- 48 of HPV18 protein E6) SEQ ID NO:26

FAFKDLFVV (residues 47- 55 of HPV18 protein E6) SEQ ID NO:27
DTLEKLTNT (residues 88- 96 of HPV18 protein E6) SEQ ID NO:28
LTNTGLYNL (residues 93-101 of HPV18 protein E6) SEQ ID NO:29
TLQDIVLHL (residues 7- 15 of HPV18 protein E7) SEQ ID NO:30
FQQLFLNTL (residues 86- 94 of HPV18 protein E7) SEQ ID NO:31
QLFLNTLSF (residues 88- 96 of HPV18 protein E7) SEQ ID NO:32
LFLNTLSFV (residues 89- 97 of HPV18 protein E7) SEQ ID NO:33 and
LSFVCPWCA (residues 94-102 of HPV18 protein E7) SEQ ID NO:34;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV18; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A2.1.

7. (cancelled)

8. (currently amended) [A] An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

YRDGNPYAV (residues 61- 69 of HPV16 protein E6) SEQ ID NO:35
WTGRCMSCC (residues 139-147 of HPV16 protein E6) SEQ ID NO:36
MSCCRSSRT (residues 144-152 of HPV16 protein E6) SEQ ID NO:37
TTDLICYEQ (residues 19- 27 of HPV16 protein E7) SEQ ID NO:38
EIDGPAGQA (residues 37- 45 of HPV16 protein E7) SEQ ID NO:39 and
HVDIRTLED (residues 73- 81 of HPV16 protein E7) SEQ ID NO:40;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A1.

9. (cancelled)

10. (currently amended) [A] An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

AMFQDPQER (residues 7- 15 of HPV16 protein E6) SEQ ID NO:1
IILECVYCK (residues 33- 41 of HPV16 protein E6) SEQ ID NO:41
CVYCKQQLL (residues 37- 45 of HPV16 protein E6) SEQ ID NO:9
VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42
QQLLRREVY (residues 42- 50 of HPV16 protein E6) SEQ ID NO:43
IVYRDGNPY (residues 59- 67 of HPV16 protein E6) SEQ ID NO:44
YAVCDKCLK (residues 67- 75 of HPV16 protein E6) SEQ ID NO:45
AVCDKCLKF (residues 68- 76 of HPV16 protein E6) SEQ ID NO:46
VCDKCLKFY (residues 69- 77 of HPV16 protein E6) SEQ ID NO:47
KFYSKISEY (residues 75- 83 of HPV16 protein E6) SEQ ID NO:48
KISEYRHYC (residues 79- 87 of HPV16 protein E6) SEQ ID NO:11
ISEYRHYCY (residues 80- 88 of HPV16 protein E6) SEQ ID NO:49
RHYCYSLYG (residues 84- 92 of HPV16 protein E6) SEQ ID NO:50
SLYGTTLEQ (residues 89- 97 of HPV16 protein E6) SEQ ID NO:51
TTLEQQYNK (residues 93-101 of HPV16 protein E6) SEQ ID NO:52
QQYNKPLCD (residues 97-105 of HPV16 protein E6) SEQ ID NO:53
LIRCINCQK (residues 107-115 of HPV16 protein E6) SEQ ID NO:54
HLDKKQRFH (residues 125-133 of HPV16 protein E6) SEQ ID NO:55
CMSSCRSSR (residues 143-151 of HPV16 protein E6) SEQ ID NO:56
SSCRSSRTR (residues 145-153 of HPV16 protein E6) SEQ ID NO:57
CCRSSRTRR (residues 146-154 of HPV16 protein E6) SEQ ID NO:58
YNIVTFCK (residues 52- 60 of HPV16 protein E7) SEQ ID NO:60
CCKCDSTLR (residues 58- 66 of HPV16 protein E7) SEQ ID NO:61 and
KCDSTLRLC (residues 60- 68 of HPV16 protein E7) SEQ ID NO:62;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and wherein said peptide has the ability to bind to human MHC Class I allele HLA-A3.2.

11. (cancelled)

12. (currently amended) [A] An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

AMFQDPQER (residues 7- 15 of HPV16 protein E6) SEQ ID NO:1
IILECVYCK (residues 33- 41 of HPV16 protein E6) SEQ ID NO:41
CVYCKQQLL (residues 37- 45 of HPV16 protein E6) SEQ ID NO:9
VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42
QQLLRREVY (residues 42- 50 of HPV16 protein E6) SEQ ID NO:43
IVYRDGNPY (residues 59- 67 of HPV16 protein E6) SEQ ID NO:44
YAVCDKCLK (residues 67- 75 of HPV16 protein E6) SEQ ID NO:45
AVCDKCLKF (residues 68- 76 of HPV16 protein E6) SEQ ID NO:46
VCDKCLKFY (residues 69- 77 of HPV16 protein E6) SEQ ID NO:47
KISEYRHYC (residues 79- 87 of HPV16 protein E6) SEQ ID NO:11
ISEYRHYCY (residues 80- 88 of HPV16 protein E6) SEQ ID NO:49
LIRCINCQK (residues 107-115 of HPV16 protein E6) SEQ ID NO:54
TGRCMSSCR (residues 140-148 of HPV16 protein E6) SEQ ID NO:63
CMSSCRSSR (residues 143-151 of HPV16 protein E6) SEQ ID NO:56
SSCRSSRTR (residues 145-153 of HPV16 protein E6) SEQ ID NO:57
YNIVTFCK (residues 52- 60 of HPV16 protein E7) SEQ ID NO:60
CCKCDSTLR.(residues 58- 66 of HPV16 protein E7) SEQ ID NO:61 and
VCPICSQKP (residues 90- 98 of HPV16 protein E7) SEQ ID NO:64;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and

wherein said peptide has the ability to bind to human MHC Class I allele HLA-A11.2.

13. (cancelled)

14. (currently amended) [A] An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

MHQKRTAMF (residues 1- 9 of HPV16 protein E6) SEQ ID NO:65
LQTTIHDII (residues 26- 34 of HPV16 protein E6) SEQ ID NO:6
VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42
LLRREVYDF (residues 44- 52 of HPV16 protein E6) SEQ ID NO:66
VYDFAFRDL (residues 49- 57 of HPV16 protein E6) SEQ ID NO:67
PYAVCDKCL (residues 66- 74 of HPV16 protein E6) SEQ ID NO:68
KCLKFYSKI (residues 72- 80 of HPV16 protein E6) SEQ ID NO:69
EYRHYCYSL (residues 82- 90 of HPV16 protein E6) SEQ ID NO:70
HYCYSLYGT (residues 85- 93 of HPV16 protein E6) SEQ ID NO:71
CYSLYGTTL (residues 87- 95 of HPV16 protein E6) SEQ ID NO:72
RFHNIRGRW (residues 131-139 of HPV16 protein E6) SEQ ID NO:73 and
RAHYNIVTF (residues 49- 57 of HPV16 protein E7) SEQ ID NO:74;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A24.

15. (cancelled)

16. (previously presented) A pharmaceutical composition comprising the peptide of claim 5 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

17-25. (cancelled)

26. (previously presented) A pharmaceutical composition comprising the peptide of claim 6 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

27. (previously presented) A pharmaceutical composition comprising the peptide of claim 8 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

28. (previously presented) A pharmaceutical composition comprising the peptide of claim 10 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

29. (previously presented) A pharmaceutical composition comprising the peptide of claim 12 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

30. (previously presented) A pharmaceutical composition comprising the peptide of claim 14 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

4. Claims 5, 6, 8, 10, 12, 14, 16 and 26-30 have been allowed and renumbered 1-12 respectively.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

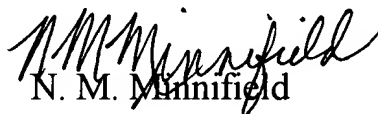
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. M. Minnifield whose telephone number is 571-272-0860. The examiner can normally be reached on M-F (8:00-5:30) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571-272-8975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



N. M. Minnifield

Primary Examiner

Art Unit 1645

NMM

December 7, 2007

CLEAN COPY OF ALLOWED CLAIMS

5. An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

AMFQDPQER (residues 7- 15 of HPV16 protein E6) SEQ ID NO:1
KLPQLCTEL (residues 18- 26 of HPV16 protein E6) SEQ ID NO:2
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IHDIIILECV (residues 30- 38 of HPV16 protein E6) SEQ ID NO:8
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RLCVQSTHV (residues 66- 74 of HPV16 protein E7) SEQ ID NO:16
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LLMGTLGIV (residues 82- 90 of HPV16 protein E7) SEQ ID NO:18
GTLGIVCPI (residues 85- 93 of HPV16 protein E7) SEQ ID NO:19 and
TLGIVCPIC (residues 86- 94 of HPV16 protein E7) SEQ ID NO:20;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A2.1.

6. An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

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KTVLELTEV (residues 36- 44 of HPV18 protein E6) SEQ ID NO:25

ELTEVFEFA (residues 40- 48 of HPV18 protein E6) SEQ ID NO:26

FAFKDLFVV (residues 47- 55 of HPV18 protein E6) SEQ ID NO:27

DTLEKLTNT (residues 88- 96 of HPV18 protein E6) SEQ ID NO:28

LTNTGLYNL (residues 93-101 of HPV18 protein E6) SEQ ID NO:29

TLQDIVLHL (residues 7- 15 of HPV18 protein E7) SEQ ID NO:30

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LSFVCPWCA (residues 94-102 of HPV18 protein E7) SEQ ID NO:34;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV18; and wherein said peptide has the ability to bind to human MHC Class I allele HLA-A2.1.

8. An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

YRDGNPYAV (residues 61- 69 of HPV16 protein E6) SEQ ID NO:35

WTGRCMSCC (residues 139-147 of HPV16 protein E6) SEQ ID NO:36

MSCCRSSRT (residues 144-152 of HPV16 protein E6) SEQ ID NO:37

TTDLICYEQ (residues 19- 27 of HPV16 protein E7) SEQ ID NO:38

EIDGPAGQA (residues 37- 45 of HPV16 protein E7) SEQ ID NO:39 and

HVDIRTLED (residues 73- 81 of HPV16 protein E7) SEQ ID NO:40;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-A1.

10. An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

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CVYCKQQLL (residues 37- 45 of HPV16 protein E6) SEQ ID NO:9
VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42
QQLLRREVY (residues 42- 50 of HPV16 protein E6) SEQ ID NO:43
IVYRDGNPY (residues 59- 67 of HPV16 protein E6) SEQ ID NO:44
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KFYSKISEY (residues 75- 83 of HPV16 protein E6) SEQ ID NO:48
KISEYRHYC (residues 79- 87 of HPV16 protein E6) SEQ ID NO:11
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SLYGTTLEQ (residues 89- 97 of HPV16 protein E6) SEQ ID NO:51
TTLEQQYNK (residues 93-101 of HPV16 protein E6) SEQ ID NO:52
QQYNKPLCD (residues 97-105 of HPV16 protein E6) SEQ ID NO:53
LIRCINCQK (residues 107-115 of HPV16 protein E6) SEQ ID NO:54
HLDKKQRFH (residues 125-133 of HPV16 protein E6) SEQ ID NO:55
CMSSCRSSR (residues 143-151 of HPV16 protein E6) SEQ ID NO:56
SSCRSSRTR (residues 145-153 of HPV16 protein E6) SEQ ID NO:57
CCRSSRTRR (residues 146-154 of HPV16 protein E6) SEQ ID NO:58
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CCKCDSTLR (residues 58- 66 of HPV16 protein E7) SEQ ID NO:61 and
KCDSTLRLC (residues 60- 68 of HPV16 protein E7) SEQ ID NO:62;
wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and
wherein said peptide has the ability to bind to human MHC Class I allele HLA-
A3.2.

12. An isolated peptide comprising an amino acid sequence from 9 to 12
amino acids in length selected from the group consisting of:

AMFQDPQER (residues 7- 15 of HPV16 protein E6) SEQ ID NO:1
IILECVYCK (residues 33- 41 of HPV16 protein E6) SEQ ID NO:41
CVYCKQQLL (residues 37- 45 of HPV16 protein E6) SEQ ID NO:9
VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42
QQLLRREVY (residues 42- 50 of HPV16 protein E6) SEQ ID NO:43
IVYRDGNPY (residues 59- 67 of HPV16 protein E6) SEQ ID NO:44
YAVCDKCLK (residues 67- 75 of HPV16 protein E6) SEQ ID NO:45
AVCDKCLKF (residues 68- 76 of HPV16 protein E6) SEQ ID NO:46
VCDKCLKFY (residues 69- 77 of HPV16 protein E6) SEQ ID NO:47
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ISEYRHYCY (residues 80- 88 of HPV16 protein E6) SEQ ID NO:49
LIRCINCQK (residues 107-115 of HPV16 protein E6) SEQ ID NO:54
TGRCMSCCR (residues 140-148 of HPV16 protein E6) SEQ ID NO:63
CMSCCRSSR (residues 143-151 of HPV16 protein E6) SEQ ID NO:56
SCCRSSRTR (residues 145-153 of HPV16 protein E6) SEQ ID NO:57
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CCKCDSTLR.(residues 58- 66 of HPV16 protein E7) SEQ ID NO:61 and
VCPICSQKP (residues 90- 98 of HPV16 protein E7) SEQ ID NO:64;
wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and

wherein said peptide has the ability to bind to human MHC Class I allele HLA-A11.2.

14. An isolated peptide comprising an amino acid sequence from 9 to 12 amino acids in length selected from the group consisting of:

MHQKRTAMF (residues 1- 9 of HPV16 protein E6) SEQ ID NO:65

LQTTIHDII (residues 26- 34 of HPV16 protein E6) SEQ ID NO:6

VYCKQQLLR (residues 38- 46 of HPV16 protein E6) SEQ ID NO:42

LLRREVYDF (residues 44- 52 of HPV16 protein E6) SEQ ID NO:66

VYDFAFRDL (residues 49- 57 of HPV16 protein E6) SEQ ID NO:67

PYAVCDKCL (residues 66- 74 of HPV16 protein E6) SEQ ID NO:68

KCLKFYSKI (residues 72- 80 of HPV16 protein E6) SEQ ID NO:69

EYRHYCYSL (residues 82- 90 of HPV16 protein E6) SEQ ID NO:70

HYCYSLYGT (residues 85- 93 of HPV16 protein E6) SEQ ID NO:71

CYSLYGTTL (residues 87- 95 of HPV16 protein E6) SEQ ID NO:72

RFHNIRGRW (residues 131-139 of HPV16 protein E6) SEQ ID NO:73 and

RAHYNIVTF (residues 49- 57 of HPV16 protein E7) SEQ ID NO:74;

wherein said amino acid sequence is derived from protein E6 or E7 of HPV16; and wherein said peptide has the ability to bind to human MHC Class I allele HLA-A24.

16. A pharmaceutical composition comprising the peptide of claim 5 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

26. A pharmaceutical composition comprising the peptide of claim 6 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

27. A pharmaceutical composition comprising the peptide of claim 8 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

28. A pharmaceutical composition comprising the peptide of claim 10 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

29. A pharmaceutical composition comprising the peptide of claim 12 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.

30. A pharmaceutical composition comprising the peptide of claim 14 and a pharmaceutically acceptable carrier, diluent, excipient or adjuvant.